

ABSTRACT

The invention relates to the direct selection of metabolic pathways having a determined function in the transformation of a substrate {Ai} into a target product {B}, which is of interest in the industrial, pharmaceutical or agri-food sectors. More specifically, the invention relates to the detection, within metagenomic libraries, of novel biosynthesis pathways involved in a biochemical reaction having a known product {B}. The selection and characterisation of said novel metabolic pathways enables {B} to be produced enzymatically. The invention provides an alternative to the chemical synthesis of the molecule in question {B}. Moreover, and above all, the invention can be used specifically to target and exploit the only metabolic pathways enabling the transformation of {Ai} into {B}, while eliminating the associated metabolic pathways that can catabolise the target product {B}.